

"Ex. Spruce budworm material, Maniwaki, P. Q., 27 VI. '11 Division of Entomology." The supposed host is *Tortrix fumiferana* Clemens, but of course the record is doubtful; I would suggest, instead, a psocid egg or a coccid pupa present in the host material.

*Habitat*.—Canada—Quebec (Maniwaki), G. E. Sanders.

*Host*.—Unknown.

*Type*.—Cat. No. 14,184, United States National Museum, Washington, D. C., one male in balsam.

### Notes on Two Tipulidae (Dipt.).

By CHARLES P. ALEXANDER, Ithaca, N. Y.

The following species were taken in Fulton County, New York, during 1909 and 1910. The first species is a novelty and cannot be referred to any of the known genera of crane flies. After a careful examination of the literature, I have decided to erect the following genus:

#### SACANDAGA gen. nov.

Subcosta, long; vein  $R^2$  very short, oblique; no radial cross-vein;  $MI+2$  fused to margin. Antennae of 16 segments; basal segment rather globular; second globular, cyathiform;

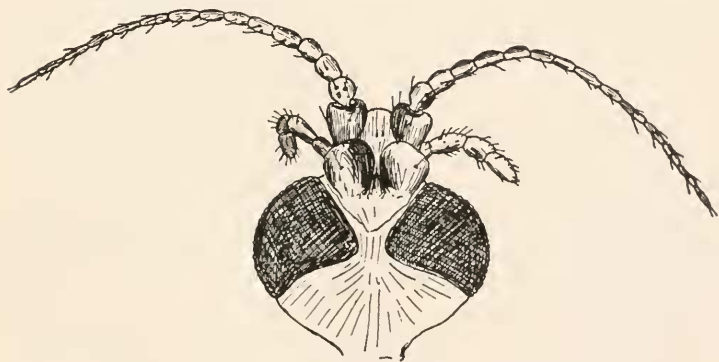


Fig. 1.—*Sacandaga flava* dorsal aspect of head; Cotype No. 2.

first segment of the flagellum globular; second to ninth gradually cylindrical; tenth to fourteenth, elongate-cylindrical; all

of the segments of the flagellum armed with from two to four stiff hairs. Palpus of four segments; fourth segment irregularly cylindrical, longer than the third; second about as long as the fourth; first longest; all armed with many stiff hairs. Eyes large, rather approximated behind. Legs rather short, fore legs about 13.5 mm. long; middle, 10.5 mm. long; hind, 13.5 mm. long. Last four tarsal segments very slender at their point of attachment with the segment preceding. The last tarsal joint is small, irregular in shape, rather smooth on the outer face; inner face, concave, with slight convexities at each end, the proximal with from six to eight hairs, the distal one with a single conspicuous bristle on each side, the whole inner face being rather finely clothed with hair; at the base of the segment on the outer face, are about four stiff hairs. Penultimate segment generally similar to the fifth in shape and

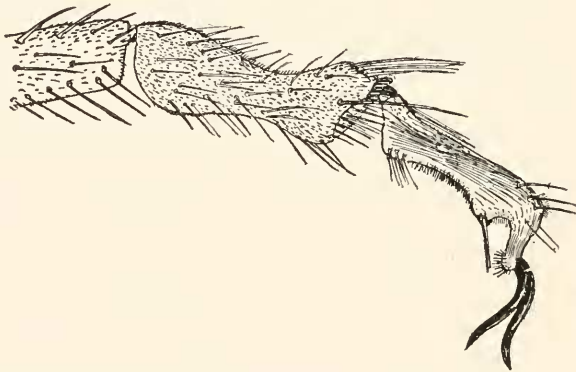


Fig. 2.—*Sacandaga flava*—middle leg, showing last two tarsal segments.

size, but more thickly covered with stout hairs. Claws long, slender, smooth, those of the posterior legs nearly two-thirds as long as the fifth tarsal segment.

This genus belongs to the tribe *Polymedini* (*Eriopterini* of authors.) It is most similar in venation to *Empeda* and *Goniomyia*, which it approaches in the shape of cell  $R^2$ . It is easily distinguished by the much greater length of subcosta, lack of radial cross-vein, the deflection of  $Cu^1$  fusing with  $M^3$

under cell first  $M^2$  (discal cell of Osten Sacken), not proximal to it, and the consequent insignificant fusion of  $Cu^1$  with  $M^3$ . The resemblance to these two genera is probably merely accidental, as, in general appearance, the flies are very different.

The type, and only known species, is:

**Sacandaga flava** sp. nov.

*Type*—Alcoholic ♀, in C. U. collection; Sport Is., Sacandaga River, June 12, '09. Cotypes; (1) Sport Island, July 5, '09 (collection Bost. Soc. Nat. Hist.). (2), ♂; June 27, '10; same locality. (3), ♂; June 12, '09; same locality. (4), Gloversville, N. Y., July 3, '09.

Length 5 mm.; wing, from 6 to 7 mm. See table of leg measurements at the end of description.

Antennæ blackish-brown; first segment, head and palpi, reddish-brown; eyes black.

Thoracic dorsum with a broad median stripe of reddish-brown on a more yellowish ground, beginning on the anterior margin of the præscutum, terminating within a short distance of the posterior margin. To the side of this, and more or less distinctly separated from it, is a broad stripe, beginning near the caudal end of the scutum and extending forwards on the side of the præscutum to near the middle of the latter. A narrow brown stripe extends from the anterior margin of the præscutum to the cephalic margin of the neck. Sides of the neck and thorax, honey-yellow, becoming infuscated toward the venter. Legs dusky yellow; halteres light yellow throughout. Abdomen dirty yellowish. Wings hyaline, opalescent; stigma somewhat distinct.

Details of venation of the species: Subcosta long,  $Sc1$  at least five times the length of  $Sc2$ . Radius quite long, parallel to subcosta till the latter ends, and then parallel to costa for a short distance, at its tip sharply turned upward. The radial sector arises near the middle of  $R$ .  $R2$  is very short, oblique, shorter than the cross-vein  $r-m$  and only one quarter the length of  $R3$ .  $R3$  a trifle longer than  $R2+3$ . Basal deflection of  $R4+5$  as long as  $R2$ ; beyond the  $r-m$  cross-vein, the vein runs nearly parallel between  $R2+3$  and  $M1+2$ .

Media: basal deflection of  $M1+2$  about one-half the length of  $R2$ ; thence, to the  $m$  cross-vein, twice the length of  $R2$ . Basal deflection of  $M3$  equals  $R2$ . Fused portion of  $M3+Cu1$  equal to one and one-half  $R2$ . Second deflection of  $M3$ , two-thirds the length of  $R2$ .

*Cubitus*: Basal deflection of *Cu1* (great cross-vein of Osten Sacken) two-thirds the length of *Cu2* or one and one-half *R2*.

1st Anal, nearly parallel to cubitus, more divergent toward the wing-margin. 2nd Anal, gently bisinuate and diverging posteriorly, leaving cell 1st *A* very large.

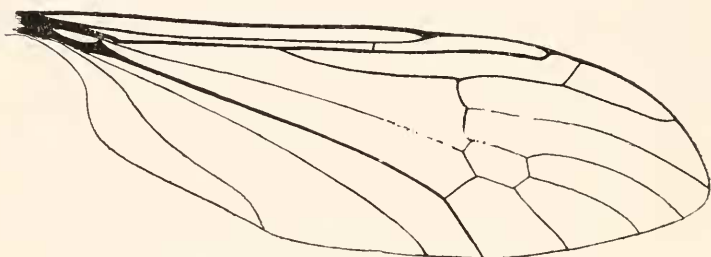


Fig. 3.—*Sacandaga flava*—wing; Cotype No. 3.

Cell *R2* is triangular, small; cell 1st *M2* (discal cell of Osten Sacken) hexagonal, small. The proportions of the veins holds good in the specimens examined but may vary somewhat in a large series.

Leg measurements of cotype No. 2 (♂):

	FORE	MIDDLE	HIND
Femora	3.6 mm.	3.6 mm.	4.9 mm.
Tibia	4.8 "	3.7 "	4.5 "
Tarsus.....1	3.3 "	2.0 "	2.35 "
" .....2	1.0 "	.75 "	.90 "
" .....3	.3 "	.28 "	.35 "
" .....4	.14 "	.14 "	.14 "
" .....5	.13 "	.13 "	.13 "
Total.....	13.27 mm.	10.60 mm.	13.27 mm.

More complete notes on the habits and occurrence will be given in "Fulton Co. (New York) Tipulidæ; Pt. II."

#### *Adelphomyia senilis*.

A second species which deserves mention is a little crane-fly of the tribe *Limnophilini*. It belongs to the genus *Adelphomyia*, hitherto known only from the Old World, and is undoubtedly the same as the common European, *A. senilis* Haliday. The specimens at hand, over a hundred in number, agree

so closely with Loew's detailed description (as *Cladura fuscula*, Besch. Europ. Dipt. III, p. 65), that it must be referred to *senilis* until a comparison with European specimens proves it otherwise.

The fly is very common in Fulton County, New York, in late summer and early autumn, and with the exception of the all-predominant *Cladura flavoferruginea* O. S., is the most common *Amphinomine* (*Limnobine*) at this season.

The venation, as shown by figure 4, is, in general, similar to a *Phylidorea* (*Limnophila*), but  $Sc^1$  is longer than in any of the species of this genus in Eastern America, at least. All of the distal cells possess long prominent hairs on the membrane. These hairs occur all over cells 2nd  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^5$ ,  $M^1$ ,  $M^2$ ,

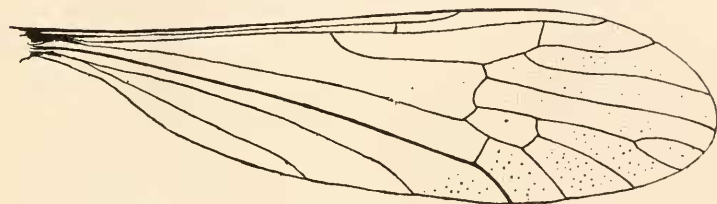


Fig 4.—*Adelphomyia senilis*—wing.

$M^3$ ,  $Cu^1$ , a few in cell 2nd  $M^2$  (discal cell of authors), and a few on the extreme distal edge of cells  $Cu$ ,  $R$  and  $Sc^1$ . There is never any of this hairiness on the proximal half of the wing as in *Ulomorpha* and the character of the hair is different in the two genera.

*Adelphomyia senilis* might be mistaken for a small *Phylidorea*, but it is smaller than any of the described Eastern species. From *Ulomorpha*, it readily separates by its smaller size, presence of cell  $M^1$  and characters mentioned above.

In Fulton County, New York, the species is well distributed, as follows:

(1) Woodworth's Lake; alt. 1665 ft.; Aug. 21, 22, '09; Aug. 22, 1910.

(2) Sport Is.; Sacandaga R.; alt. 750 ft.; one only, Aug. 24, 1910.

(3) Johnstown; alt. 600 ft.; Aug. 31-Sept. 22, 1910.

(4) Gloversville; alt. 1000 ft.; Sept. 23, 1910.

Mr. M. D. Leonard, a most careful student of the family, took two specimens at Ridgewood, Bergen Co., N. J. (Brook, Ridgewood Heights, Sept. 16, 1910), thereby adding an interesting species to the New Jersey State list.

Besides receiving help from a number of students at Cornell, I wish, especially, to thank Dr. J. G. Needham for his very kind assistance throughout the course of this study.

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## Two Rare Species of Coleoptera.

BY HENRY SKINNER, M.D., Sc.D., Philadelphia, Pa.

### I. DORCUS BREVIS SAY.

It seems of interest at this time to put on record in more concrete form a short history of this interesting beetle. It was described under the name of *Lucanus brevis* by Thomas Say in the Journal of the Academy of Natural Sciences of Philadelphia, Volume V, pt. 1, p. 202, 1825. No locality was mentioned other than the United States. The next mention of the species is probably by J. H. B. Bland, Proceedings of the Entomological Society of Philadelphia, 1, 263, 1862. He gives a brief account of the records of the species and a figure. Three specimens are mentioned as having been found within a few miles of each other in the months of July and August. The specimen figured, a male, was taken alive near Weymouth, New Jersey. This specimen is in the collection of the American Entomological Society. "Of the other two, one a female, is in the collection of Dr. Leconte [now Museum of Comparative Zoology, Cambridge, Massachusetts], the other, a male, is in Mr. Bland's collection, both being more or less imperfect." The specimen mentioned as being in Mr. Bland's collection passed into the hands of the late Charles Wilt and is now in the collection of the American Entomological Society. Mr. Bland stated that the species had been lost from our fauna since 1831. All the specimens were collected by G.